Case report

Pyoperitoneum associated with uterovaginal prolapse in two elderly women

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Case report: Incarcerated uterovaginal prolapse due to pelvic and peritoneal abscess (pyoperitoneum) which at initial laparotomy was insufficiently dealt due to plastered peritoneum and dense pelvic adhesion, just by means of peritoneal lavage alone in one case and subtotal hysterectomy in the other and were wisely operated at a later date, removing uterus and bilateral adnexal mass at abdominal hysterectomy and bilateral salphingo-oophorectomy or removal of prolapsed cervix, that included the safety of surgical procedure is highlighted.

Key words : Pyoperitoneum, pelvic abscess, peritoneal lavage

Introduction

Preoperative pyoperitoneum or pelvic abscess with uterovaginal prolapse is a rare entity and has been rarely reported in gynecological practices.[1-3] In the two cases to be described herewith, there was pelvioperitonitis and Douglas' abscess coexistent with uterine incarceration.

In literature search incarceration of uterus has occurred during pregnancy or coexistent with cervical myoma or a retroflexed gravid uterus from severe uterine prolapse.[4-6]

Case 1

A 35 years old multipara P2 running high pyrexia came for admission on account of oliguria. She looked toxic and had third degree uterovaginal prolapse, adnexal mass and pelvic abscess. During investigation: anemia (Hemoglobin 7gm %), urinary infection with E coli, raised urea creatinine (double the normal value) level and bilateral hydronephrosis was noted. After consultation with Urologists and treatment with antibiotic for a week, laparotomy was performed. But owing to plastered pelvis, entry to the abdominal cavity was rather difficult. Some amount of pus could be drained and sent for bacteriological culture and sensitivity, unfortunately tuboovarian mass could not be removed so peritoneal lavage was done thereby closing the abdomen. She was given higher antibiotics 3rd generation cephalexin, ceftriaxone 1 Gm 12 hourly and metronidazole 500mg 8 hourly for 10 days via intravenous, route.

As the renal parameters were suggestive of chronic renal failure and persistence of bilateral hydronephrosis as viewed on abdominal ultrasound, the operation for prolapse was suggested for a later date.

She was readmitted for operation after 4 months. There was history of amenorrhea for almost 4 months. Because of palpable pelvic mass, combined abdomino perineal surgery removing the uterus and mass abdominally with the reconstruction of pelvic floor was conceived.

It was surprising to find easier access into the clean and clear peritoneal cavity (Dec 28th 2004)but the uterus was enlarged to 14-16 weeks pregnancy size with bilateral tuboovarian masses each 6x7 cms (fig 1) which were easily

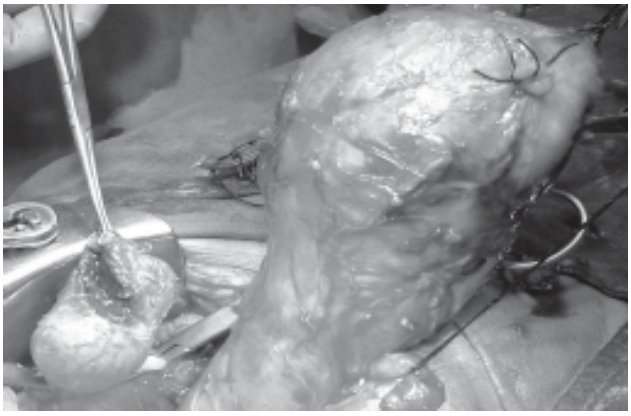

Fig. 1: Enlarged uterus with bilteral tuboovarian mass.

removed abdominally and acquiring cystocele and pelvic floor repair from below successfully.

On cutting the uterus, it was found to be full of tarry colored blood (fig 2) and thick capsulated multiloculated ovarian mass devoid of intracystic pus.

Fig. 2: Uterus with tarry coloured blood.

Hydrnephrosis persisted even after surgery and renal parameters did not change much. So, renal involvement from septic peritonitis as presumed. She was discharged and advised to follow up in Nephrology Unit of our hospital.

Case 2.

35yrs Para3 [B& 15yrs, @& 9yrs, @&7yrs] + 2 (induced abortion at 2½ -3 months 4 and 2 years back) from Dhanusa was admitted on May 2005 with complaint of (c/o) something coming out per vagina > 5years and abdominal pain for 3 months.

Past history

Her past history was significant as she had undergone subtotal hysterectomy with left sided salpingoophorectomy for left sided tuboovarian mass with septic pyoperitonitis following induced abortion as detailed below.

2 ½ years back she had been admitted through emergency with c/o 3months amenorrhea

lower pain abdomen for a month, foul smelling pus like discharge p/v for the same duration. On examination, there was ill defined abdominal mass that corresponded to 18 weeks of uterus with tenderness over hypogastrium. Uterus was acutely anteverted and pelvis was full of mass. There was hypertrophied cervix, 2nd degree UVP with cystocele and rectocele.

Clue test was –ve, TLC 24,800/cmm and USG showed bilateral (B/L) complex cyst in the adnexal region.

Laparotomy was proceeded with the diagnosis of septic peritonitis following induced septic abortion. On opening abdomen 8 weeks sized uterus entirely covered by exudates on both of its anterior and posterior surface was seen that was spreading up to the lateral pelvic wall where a tuboovarian mass 4x6cm was lying admist pyoperitoneum in the vicinity of Pouch of Douglas (POD) expanding obliquely towards left side of uterus.

One litre pus was drained and operation was completed by subtotal hysterectomy and salphingoophorectomy. Prolapse was not dealt because of dense adhesion all around in the lower pelvis adjacent to cervix and vagina.

She was hospitalized for 15 days, keeping her on ceftriaxone and metronidazole for 2 weeks in total (pre/post surgery) and was discharged home with recovery.

On second admission; abdomen was soft and non tender on examination. On the abdomen, a midline scar of previous laparotomy was also seen along with 2nd degree cervical descent with cystocele and rectocele (fig 3).

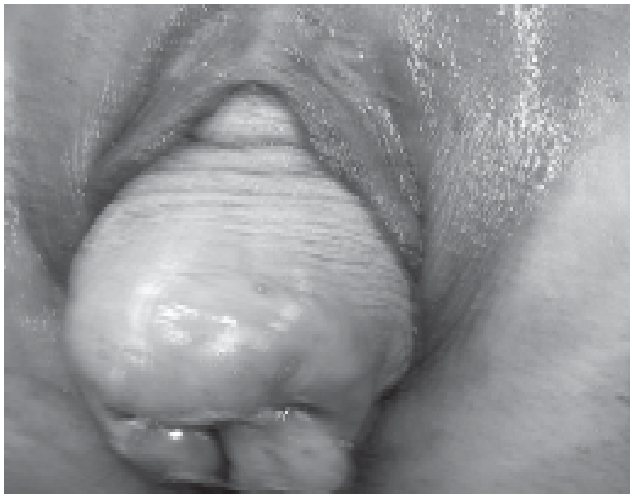

Fig. 3: Prolapse with history of past surgery for pyoperitoneum

She underwent anterior and posterior pelvic floor repair with the removal of hypertrophied and elongated cervix (fig 4). Cut section of cervix showed empty cervical canal.

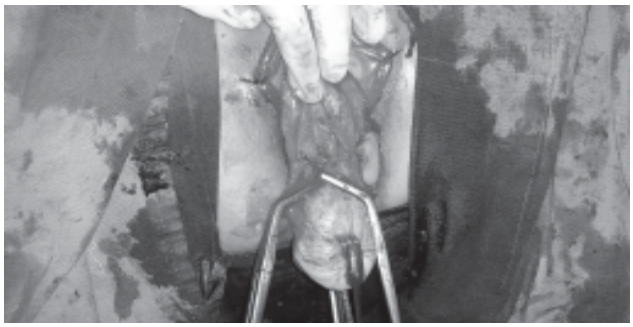

Fig. 4: removing left over cervix after previous subtotal hysterectomy

Post operative period was uneventful and was discharged after 6 days

Discussion

In the both cases uterovaginal prolapse was associated with pelvioperitonitis and Douglas' pouch abscess and in one case there was a known cause and in other cause was unknown. In one of the cases (case 2) subtotal hysterectomy was feasible after antibiotic treatment in the first admission itself followed by the removal of the prolapsed cervix in the second operation. In the first one (case 1), abdominal hysterectomy with bilateral salphingo-oophorectomy was performed at the time of second admission.

Most surprising experience was the ease of surgery, practically without any abdominal and pelvic adhesions in both the cases at the second operation. This taught us that, under certain circumstances a minimum intervention may be rewarding as both the cases of severe pelvic and peritoneal infection had a maximum benefit with the operation at a later date.

It has been concluded after evaluating 113 women with generalized peritonitis due to ruptured tuboovarian abscess that hysterectomy (only undertaken in 3%) is not necessary and that if the major source of sepsis is removed and adequate peritoneal lavage is done combined with intra- and postoperative antibiotic. [7]

It is difficult to assume what was the factor responsible for pyoperitoneum. Perhaps the fault must not have been prolapse itself. There are instances of fulminate peritonitis from rupture of iliopsoas abscess, intrauterine contraceptive related abdominal actinomycosis and tuboovarian abscess.[8-10] In the latter case ova or fragments of adult worm of enterobius vermicularis have been retrieved from the inflammatory exudates of salpingo-oophorectomy mass.

Ideally treatment of pelvic abscess is suitable with preoperative and per operative antibiotic. Antibiotics that have given fair coverage are 28500 (clavulanic acid/ ticarcillin). or piperacilline for 15 days. [10,11] Whereas ceftriaxone (third generation cephalexin and metronidazole did the magic in our case.

At primary surgery, the greater omentum, an organ of excellent absorption ability and of infection defence have been transposed as vascular pedicle covering spaces after abscess clearance and peritoneal lavage with recorded benefit in eight cases.[12]

Both the women on follow up do not have problem and the response to ceftriaxone being remarkable.

Conclusion

Incarceration of uterine prolapse presenting as pelvic and peritoneal abscess in the presence of dense pelvic adhesion can be wisely dealt after the management of more morbid condition at a later date on second surgery.

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